

CLAIMS:

1. A method for providing gastric stimulation to induce symptoms in a patient, the method comprising:
 - generating an electric stimulation signal for inducing symptoms in the patient; and
 - applying the electric stimulation signal to a gastrointestinal tract of the patient;
 - wherein the electric stimulation signal induces symptoms of gastroparesis in the patient without substantially disrupting stomach motility.
2. The method according to claim 1, wherein the electric stimulation signal has a frequency significantly greater than a normal gastric slow wave of the patient.
3. The method according to claim 1, wherein the symptoms include at least one of nausea, satiety, and gastric discomfort.
4. The method according to claim 1, further comprising:
 - receiving an external command for initiating and terminating electric stimulation; and
 - generating the electric stimulation signal in response to the external command.
5. The method according to claim 4, wherein the external command comprises:
 - a command operation; and
 - a command time of day when the command operation is to occur.
6. The method according to claim 4, wherein the external command indicates initiation of the application of the electric stimulation signal.
7. The method according to claim 4, wherein the external command indicates termination of the application of the electric stimulation signal.
8. The method according to claim 1, wherein the electric stimulation signal comprises a set of signal parameters comprising an amplitude, a signal frequency, a pulse width, and a

duty cycle, and at least one of the parameters is selected to be insufficient to cause disruption of normal stomach motility.

9. The method according to claim 1, wherein the electric stimulation signal comprises a set of signal parameters, the set of signal parameters comprising:

- an amplitude between approximately 1 mA and 100 mA;
- a signal frequency between approximately 0.5 Hz and 500 Hz;
- a pulse width between approximately 10 microseconds and 5000 microseconds;
- an on duty cycle between approximately 0.1 seconds and 1 second; and
- an off duty cycle between approximately 1 second and 60 seconds.

10. The method according to claim 1, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising:

- an amplitude between approximately 0.1 mA and 10 mA;
- a signal frequency between approximately 10 Hz and 250 Hz;
- a pulse width between approximately 100 microseconds and 1000 microseconds;
- an on duty cycle between approximately 0.1 seconds and 0.5 second; and
- an off duty cycle between approximately 1 second and 10 seconds.

11. The method according to claim 1, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising:

- an amplitude of approximately 5 mA;
- a signal frequency of approximately 14 Hz;
- a pulse width of approximately 330 microseconds;
- an on duty cycle of approximately 0.1 seconds; and
- an off duty cycle of approximately 5 seconds.

12. The method according to claim 1, wherein the method further comprises:
sensing a physiological parameter associated with the gastrointestinal tract; and
adjusting the set of signal parameters based upon the sensed physiological parameter.

13. The method according to claim 12, wherein adjusting the set of signal parameters results in termination of generation of the electric stimulation signal.
14. A system for providing gastric stimulation to induce symptoms in a patient comprising:
 - a stimulator to generate an electric stimulation signal;
 - a stimulation electrode to apply the electric stimulation signal to a gastrointestinal tract of a patient; and
 - a processor to control generation of the electric stimulation by the stimulator,;wherein the electric stimulation signal induces symptoms of gastroparesis in the patient without reducing normal stomach motility.
15. The system according to claim 14, further comprising a communication module to wirelessly receive external commands from to an external module.
16. The system according to claim 14, wherein the electric stimulation signal comprises a stimulation signal having a signal frequency significantly greater than a normal gastric slow wave of the patient.
17. The system according to claim 14, wherein the electric stimulation signal comprises a stimulation signal having a signal frequency significantly greater than a normal gastric slow wave of the patient.
18. The system according to claim 15, wherein the external command comprises:
 - a command operation; and
 - a command time of day when the command operation is to occur.
19. The system according to claim 15, wherein the processor initiates electric stimulation in response to the external command.

20. The system according to claim 15, wherein the processor terminates electric stimulation in response to the external command.
21. The system according to claim 14, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising at least one of the following an amplitude, a signal frequency, a pulse width, and a duty cycle, and at least one of the parameters is selected to be insufficient to cause disruption of normal stomach motility.
22. The system according to claim 14, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising:
an amplitude approximately between 1 mA and 100 mA;
a signal frequency approximately between 0.5 Hz and 500 Hz;
a pulse width approximately between 10 microseconds and 5000 microseconds;
an on duty cycle approximately between 0.1 seconds and 1 second; and
an off duty cycle approximately between 1 second and 60 seconds.
23. The system according to claim 14, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising:
an amplitude of approximately 5 mA;
a signal frequency of 1 approximately 4 Hz;
a pulse width of approximately 330 microseconds;
an on duty cycle between approximately 0.1 seconds; and
an off duty cycle between approximately 5 seconds.
24. A system for providing gastric stimulation to induce symptoms in a patient comprising:
processing means to processing an external command received from and external module; and
stimulation means to induce symptoms in the patient for treatment of obesity;
wherein the stimulation means generates an electric stimulation signal; and

the electric stimulation signal induces symptoms of gastroparesis in the patient without reducing normal stomach motility.

25. The system according to claim 24, wherein the external command comprises:
a command operation; and
a command time of day when the command operation is to occur.
26. The system of claim 24, wherein the system further comprises a memory means to data associated storing the external command.
27. The system according to claim 24, wherein the stimulation means generates an electric stimulation signal comprises a stimulation signal having a signal frequency significantly greater than a normal gastric slow wave of the patient.
28. The system according to claim 24, wherein the symptoms include at least one of nausea, satiety, and gastric discomfort.
29. The system according to claim 24 further comprising:
receiving means for receiving an external command for initiating and terminating electric stimulation;
wherein the stimulation means generates the electric stimulation signal in response to the external command.
30. The system according to claim 29, wherein the external command comprises:
a command operation; and
a command time of day when the command operation is to occur.
31. The system according to claim 29, wherein the external command indicates initiation of the application of the electric stimulation signal.

32. The system according to claim 39, wherein the external command indicates termination of the application of the electric stimulation signal.
33. The system according to claim 24, wherein the electric stimulation signal comprises a set of signal parameters comprising an amplitude, a signal frequency, a pulse width, and a duty cycle, and at least one of the parameters is selected to be insufficient to cause disruption of normal stomach motility.
34. The system according to claim 24, wherein the electric stimulation signal comprises a set of signal parameters, the set of signal parameters comprising:
an amplitude between approximately 1 mA and 100 mA;
a signal frequency between approximately 0.5 Hz and 500 Hz;
a pulse width between approximately 10 microseconds and 5000 microseconds;
an on duty cycle between approximately 0.1 seconds and 1 second; and
an off duty cycle between approximately 1 second and 60 seconds.
35. The system according to claim 24, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising:
an amplitude between approximately 0.1 mA and 10 mA;
a signal frequency between approximately 10 Hz and 250 Hz;
a pulse width between approximately 100 microseconds and 1000 microseconds;
an on duty cycle between approximately 0.1 seconds and 0.5 second; and
an off duty cycle between approximately 1 second and 10 seconds.
36. The system according to claim 24, wherein the electric stimulation signal comprises a set of signal parameter, the set of signal parameters comprising:
an amplitude of approximately 5 mA;
a signal frequency of approximately 14 Hz;
a pulse width of approximately 330 microseconds;
an on duty cycle of approximately 0.1 seconds; and
an off duty cycle of approximately 5 seconds.

37. A computer-readable medium comprising instructions that cause a processor to provide gastric stimulation to induce symptoms in a patient, the instructions causing the processor to:

control generation of an electric stimulation signal for inducing symptoms in the patient in response to the external command; and

control transmission the electric stimulation signal to a gastrointestinal tract of the patient;

wherein the electric stimulation signal induces symptoms of gastroparesis in the patient without reducing normal stomach motility.

38. The medium according to claim 37, wherein the electric stimulation signal comprises a stimulation signal having a signal frequency significantly greater than a normal gastric slow wave of the patient.

39. The medium according to claim 37, wherein the electric stimulation signal comprises a set of signal parameters, the set of signal parameters comprising:

an amplitude between 0.1 mA and 10 mA;

a signal frequency between 10 Hz and 250 Hz;

a pulse width between 100 microseconds and 1000 microseconds;

an on duty cycle between 0.1 seconds and 0.5 second; and

an off duty cycle between 1 second and 10 seconds.

40. The medium according to claim 37, wherein the electric stimulation signal comprises a set of signal parameters, the set of signal parameters comprising:

an amplitude of 5 mA;

a signal frequency of 14 Hz;

a pulse width of 330 microseconds;

an on duty cycle between 0.1 seconds; and

an off duty cycle between 5 seconds.